

## Amendments to the Claims

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- ✓ 1. (Currently Amended) A method for reordering messages for  
2 processing, the messages received from a communication network, each message  
characterized by a source identifier and type, the method comprising:  
4 providing a message store, the message store including a plurality of storage slots  
configured to store messages received from the network;  
6 providing a plurality of FIFO queues configured to store tags corresponding to the  
messages, wherein each tag identifies the storage slot in which the corresponding  
8 message is stored;  
enqueuing a given message by including:  
10 storing the given message in a given storage slot identified by a given tag,  
when any slot is empty;  
12 selecting one of the FIFO queues based at least on source identifier and  
type for the given message; and  
14 loading the given tag onto the selected FIFO queue.
- ✓ 2. (Original) The method of claim 1 further including:  
2 selecting a message for dequeuing after the tag corresponding to the message is at  
the head of one of the FIFO queues;  
4 removing the tag corresponding to the selected message from the corresponding  
FIFO queue; and  
6 freeing the storage slot identified by the tag corresponding to the selected  
message.
- ✓ 3. (Original) The method of claim 2 wherein selecting a message for  
2 dequeuing further includes arbitrating for priority by applying a round robin priority  
algorithm.
- ✓ 4. (Original) The method of claim 2 wherein selecting a message for  
2 dequeuing further includes determining that resources are available for processing the

message.

✓ 5. (Original) The method of claim 4 wherein selecting a message for  
2 dequeuing further includes arbitrating for priority.

✓ 6. (Original) The method of claim 1 wherein selecting one of the FIFO  
2 queues includes ensuring that no two FIFO queues contain tags corresponding to  
messages with the same source identifier and type.

7. (Original) The method of claim 1 wherein the number of FIFO queues  
2 equals the number of storage slots.

✓ 8. (Currently Amended) A method for reordering messages for  
2 processing by a node, the messages received from a communication network, each  
message characterized by a source identifier and type, the method comprising:  
4 providing a message store, the message store including a plurality of storage slots  
configured to store messages received from the network;  
6 providing a plurality of FIFO queues, ~~the queues containing~~ configured to queue  
tags identifying the storage slots, wherein tags corresponding to each message stored in  
8 the message store are queued in the FIFO queues when the corresponding messages are  
stored;  
10 selecting a given message for dequeuing from the message store after the tag  
corresponding to the given message is at the head of one of the FIFO queues;  
12 removing the tag corresponding to the given message from the FIFO queue; and  
freeing the storage slot identified by the tag.

✓ 9. (Original) A method according to claim 8, wherein selecting a given  
2 message for dequeuing further includes determining that the node has acquired resources  
for processing the given message.

10. (Currently Amended) A method according to claim 8, wherein

2 selecting a given message for dequeuing further includes arbitrating for priority among  
✓ multiple messages for which the corresponding tags are ~~tag is~~ at the head of different one  
4 ~~of the~~ FIFO queues and for which the node has acquired resources for processing the  
given message.

C! ✓ 11. (Original) A method according to claim 10, wherein arbitrating for  
2 priority includes applying a round robin algorithm.

12. (Currently Amended) A message reordering device for messages  
2 received from a communication network for processing, each message characterized by a  
source identifier and a type, the device comprising:

4 a message store, the message store including a plurality of storage slots  
configured to store messages received from the network;

6 a plurality of FIFO queues configured to store tags corresponding to the  
messages, wherein each tag identifies the storage slot in which the corresponding  
8 message is stored;

logic for enqueueing a given message, wherein the enqueueing includes including:  
10 storing the given message in a storage slot identified by a given tag, when  
any slot is empty;

12 selecting one of the plurality of FIFO queues based at least on source  
identifier and type for the message; and

14 loading the given tag onto the selected FIFO queue.

13. (Original) The device of claim 12 further including:

2 logic for selecting a given message for dequeuing;

logic for removing the tag corresponding to the given message from the  
4 corresponding FIFO queue; and

logic for freeing the storage slot identified by the tag corresponding to the given  
6 message.

14. (Original) The device of claim 13, wherein logic for selecting a given

- 2 message for dequeuing further includes logic for arbitrating for priority among messages for which the corresponding tag is at the head of any FIFO queue and for which the node
- 4 has acquired resources for processing the message.

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